

Buckwheat: For the BEES and the BIRDS

By Coleen Vansant

Information Manager, Alabama Forestry Commission

When you talk to most landowners, they have stories to tell about their successes and failures. Some tell of experimenting with different things on their property deliberately and then some have stories of trying something new for one reason or another and *EURIKA!* . . . it became one of the best things they ever did.

This is what happened to Andy Webb of the Calvert Community in south Washington County when he planted buckwheat for his honeybees. Little did he know what a good thing it would “bee” for the birds.

Andy is the third generation owner of Calvert Apiaries – a company in the business of raising queen honeybees for commercial sale as well as bee-keeping supplies. Andy keeps between 1,400 and 1,500 production beehives and around 3,000 queen boxes. He planted a 7-8 acre field in buckwheat to give his bees flowers to work during the summer. Not only was the buckwheat a low maintenance crop for his bees, but it also attracted dove and quail to his field.

According to Andy, he purchased the original seed at the local co-op and planted the buckwheat by broadcast method early in the spring, shortly after the last frost. It takes 3-6 weeks for the plant to bloom (depending on the moisture) and 8-12 weeks for it to seed. After seeding he simply bush hogs the field down and starts over again. He has grown four crops this year.

Andy explains that this crop has been purely experimental and that he has

learned a lot. For example, one of his problems has been weed control. He is going to try a site-prep herbicide treatment as well as fertilizing to grow more robust plants to choke out the weeds. “It’s easy to maintain,” he adds. “It’s a good alternate source for bee keepers and farmers in attracting birds.”

country, particularly New York and Pennsylvania, have grown the most buckwheat.

Most Americans know buckwheat only from its use in buckwheat pancakes. But in reality it is a very versatile, easy-to-grow, short-season grain crop adapted to many regions. It tolerates poor soils and is often used as a soil-improving crop, a role it served for such notables as Thomas Jefferson and George Washington on their Virginia farms.

Buckwheat was one of the earliest crops to be domesticated in Asia. Its earliest use as a food crop was most likely in China five to six thousand years ago. It spread through Asia to Europe and was brought to the American colonies in the late 1600’s.

At its peak in the last half of the 19th century, more than a million acres of buckwheat were grown in the U.S. Historically, the eastern and northern parts of the



Photo by Coleen Vansant



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*Top: A bee feeding on buckwheat blooms.
Right: Andy Webb looks over field of buckwheat.*

Today buckwheat is planted primarily as a cover crop, wildlife food, livestock and poultry feed, as well as a pollen source for bees. In England, it is chiefly cultivated to supply food for pheasants and poultry. Whole-grain buckwheat is about 11-12 percent protein. With the hull removed it increases to 15-17 percent protein with 3 percent fat.

Buckwheat is a broadleaf, herbaceous plant that flowers prolifically over a period of several weeks. The small, white flower clusters develop quickly into triangular brown seeds roughly the size of soybean seeds. The brown buckwheat grains consist of a true seed (groat) surrounded by a thick hull. Both the scientific name of buckwheat, *Fagopyrum sagittatum* (Gilib.), and its common name come from the seed's appearance, which is similar to the nut of the beech tree. The nut (or seed) has a dark brown tough rind enclosing the kernel and is three-sided in form, with sharp angles resembling the triangular Beechnut. The Dutch name for the plant is boek-wit, which means beech-wheat. Buckwheat is a member of the Polygonaceae family. A weed in the southern and western U.S. called wild buckwheat is of the same botanical family, but is a different genus and species.

Buckwheat is like soybeans in that it produces flowers in an indeterminate fashion, and flowering will occur often up to harvest or frost. At peak bloom, the green leaves of the crop canopy are almost hidden under masses of white



Buckwheat seed.

flowers. The flowers are self-sterile and must be cross-fertilized by insects or wind for seed set to occur.

The plant emerges quickly in warm soil conditions and reaches a height of 2-4 feet. It has a fairly small shallow rooting system and is not particularly drought tolerant. Buckwheat sometimes temporarily wilts during hot, dry afternoons. Branches form primarily in the upper canopy. The leaves are alternate and heart-shaped, usually 2-3 inches in length.

Only a few varieties of buckwheat are available in the United States. Most farm suppliers sell a type known as "common" buckwheat. This variety has not been maintained as genetically pure. Since buckwheat varieties are not hybrids, harvested seed can be successfully used for replanting the following year.

Buckwheat tolerates relatively poor, infertile soils better than most grains, but yields best on medium-textured, well-drained soils. It is reportedly tolerant of poorly drained soils, but should be avoided on heavy or droughty soils. It tolerates acid soils down to a pH of 5. Soils prone to surface crusting may not be a good

The buckwheat was originally planted for the bees - but the birds seem to love it too.

choice since buckwheat can have emergence problems when crusting occurs.

The key to planting buckwheat is to achieve a solid, even stand which is mainly a matter of having good soil moisture and planting at an appropriate date. Buckwheat grown for purposes other than grain harvest can be planted at any date after the last spring frost. Most commercial growers do not fertilize buckwheat due to its relatively low value and modest fertility needs. However, for optimum yields, some fertilizer may be needed.

Currently no herbicides are registered for buckwheat in the U.S. Good field selection, pre-planting weed control, and establishing a uniform, dense crop canopy to shade out weeds is best for controlling undesirable weeds.

Recommended seeding rate is 50-55 pounds per acre of large seed or about 40 pounds per acre of small seed. Broadcast seeding is favorable if used as a cover crop or as a nectar source for honey production.

According to Andy, a ballpark figure for seed, fertilizer, planting, and mowing would be around \$50 per acre. This figure is comparable to research from the University of Missouri that gives a commercial production cost of \$35-80 dollars per acre. This estimate includes both transportation and drying and/or cleaning costs that would not be applicable to food plot use. ☸

Other Uses for Buckwheat:

- ☸ Beer can be brewed from the grain and by distilling it can yield an excellent spirit.
- ☸ The blossoms may be used for dyeing a brown color.
- ☸ Husks can be used for stuffing pillows.

Sources:

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